UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,433	12/15/2000	Richard A. Baker	SAA-35-1	9556

23569 7590 04/23/2007

SQUARE D COMPANY
LEGAL DEPARTMENT - I.P. GROUP
1415 SOUTH ROSELLE ROAD
PALATINE, IL 60067

EXAMINER	
VU, THONG H	
ART UNIT	PAPER NUMBER
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/738,433	BAKER ET AL.	
	Examiner	Art Unit	
	Thong H. Vu	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Claims 1-46 are pending. Claims 1,9,22,30 have been amended. The Final Office Action is follow.

Response to Arguments

2. Applicant's arguments with respect to claims 1-46 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackett et al [Blackett, 6,792,337 B2] in view of Acharya et al [Acharya 5,903,559].

3. As per claim 9, Blackett discloses An interface module for communicating messages with a remote location and to provide access to an at least one intelligent electronic device (IED) operably connected to a communication network [Blackett, IED, col 3 lines 5-65], the interface module comprising:

a central processing unit; an operating system operating the central processing unit; a network interface for communicating with the communication network [Blackett, CPU 405a, memory 405c, web module 408, Fig 4b];

(a dual protocol stack comprising) a first and second stacks for managing the communication on the network, wherein, in operation, messages are selectively

assigned to one of the first and second stacks according to a type of the respective message [Blackett, a first and second protocol, col 2 lines 21-38]; and

a set of application tasks, comprising a control task and communicating with the protocol task for responding to an incoming message from the communication network and initiating an outgoing message to the communication network using an industrial communication standard Modbus over TCP/IP, wherein the control task accepts a connection, parses a Modbus message, and calls the operation system to process the Modbus message [Blackett, Modbus and TCP/IP, col 8 line 59-col 9 line 18].

However Blackett does not explicitly detail

a protocol task for processing the communication according to the dual protocol stack;

It was well-known in the art that a communication system could process a protocol task according to the dual protocol stack [Acharya, dual stack, col 3 line 5]

Therefore it would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate the dual stack protocols on the communication system as taught by Acharya into the Blackett's apparatus in order to utilize the first and second protocol.

Doing so would provide an efficient, flexible, scalable method for transporting data from the first protocol network to the second protocol network.

4. As per claim 10, Blackett-Acharya disclose the control task comprises means for processing the Modbus message; accessing data on the at least one IED; and, sending

back a response.

5. As per claim 11, Blackett-Acharya disclose the control task further includes means for initiating the Modbus message allowing the at least one IED to communicate with the interface module.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 30-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Blackett et al [Blackett, 6,792,337 B2].

6. As per claim 30, Blackett discloses A control system for allowing a user access at a remote location through a communication network, to information and data contained in an electrical network control system having an at least one intelligent electronic device IED) [Blackett, IED, col 3 lines 5-65], the control system comprising:

means for coupling the remote location to the communication network, the coupling means including a Web browser for interacting with the communication network [Blackett, web browser, col 11 line 53];

a Web site associated with the electrical network control system and accessible through the communication network [Blackett, web server 230 and power system 201, Fig 2];
means for linking the electrical network control system to the Web site, the linking means including an interface module for coupling the at least one IED to the communication network [Blackett, col 11 lines 22-57];
first and second protocol stacks for enabling transfer of a message between the remote location and the electrical network control system, wherein, in operation, the message is selectively assigned to one of the first and second protocol stacks according to a type of the message [Blackett, first and second protocol, a first and second protocol, col 2 lines 21-38; message type, Fig 1d]; and
means for processing the message received from the remote location over the communication network, the means for processing the message comprising a control task, means for receiving a message; means for accessing the at least one IED for the message [Blackett, monitoring and control, col 3 lines 5-20]; and
means for sending a response to the remote location through the communication network using an industrial communication standard Modbus over TCP/IP, wherein the control task accepts a connection, parses a Modbus message, and calls an operation system to process the Modbus message [Blackett, Modbus and TCP/IP, col 8 line 59-col 9 line 18].

7. As per claim 31, Blackett discloses the control task includes means for processing the message received from the remote location over the communication

network; accessing data on the at least one IED; and, sending back a response [Blackett, IED, control, col 3 lines 5-19].

8. As per claim 32, Blackett discloses the control task further includes means for initiating the message allowing the IED to communicate with the remote location over the communication network [Blackett, Fig 2].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-29,33-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackett et al [Blackett, 6,792,337 B2] in view of Salas et al [Salas 5,862,391].

9. As per claim 1, Blackett discloses An interface module for communicating messages with a remote location and to provide access to an at least one intelligent electronic device (IED) operably connected to a communication network, the interface module comprising: a central processing unit;

an operating system operating the central processing unit; a network interface for communicating with the communication network [Blackett, Fig 4b];

first and second protocol stacks for managing the communication on the network, wherein, in operation, each message is selectively assigned to one of the first and

second protocol stacks according to a type of the message [Blackett, first and second protocol, a first and second protocol, col 2 lines 21-38; message type, Fig 1d];

a set of application tasks communicating with the protocol task for responding to an incoming message from the communication network and initiating an outgoing message to the communication network; and, an interconnection bus with an interface driver for communicating with the at least one IED [Blackett, Modbus and TCP/IP, col 8 line 59-col 9 line 18].

However Blackett does not explicitly detail

a protocol task for processing the communication according to the protocol stacks, wherein messages assigned to the first protocol stack have a **higher priority** than messages assigned to the second protocol stack;

It was well-known in the art that a communication system with a dual protocol stacks and could process a protocol task according to the priority stack [Salas, priority table, col 30 line 24-40]

Therefore it would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate the dual stack protocols with task priority table as taught by Salas into the Blackett's apparatus in order to utilize the first and second protocol.

Doing so would provide an efficient, flexible, scalable method for transporting data from the first protocol network to the second protocol network.

10. As per claim 2, Blackett-Salas disclose the communication network is a worldwide Internet network using the Internet Protocol (IP) [Blackett, ISP, col 11 line 21].

11. As per claim 3, Blackett-Salas disclose operating as a Web site on the Internet, the interface module having a global IP address [Blackett, ISP, col 11 line 21].

12. As per claim 4, Blackett-Salas disclose the network interface is operably connected to a driver [Blackett, Ethernet, col 7 line 57].

13. As per claim 5, Blackett-Salas disclose the network interface is operably connected to an Ethernet driver [Blackett, Ethernet, col 7 line 57].

14. As per claim 6, Blackett-Salas disclose the network interface is operably connected to a SLIP/PPP driver [Blackett, SLIP, PPP, col 11 line 4].

15. As per claim 7, Blackett-Salas disclose at least one of the protocol stacks is a Transmission Control Protocol stack [Blackett, TCP/IP, col 9 line 15].

16. As per claim 8, Blackett-Salas disclose the set of application tasks includes a control task for processing the incoming and outgoing messages between a remote location and the at least one IED using an industrial communication standard Modbus

over TCP/IP [Blackett, Modbus/TCP, col 9 line 14].

17. As per claim 12, Blackett-Salas disclose the set of application tasks comprises a HTTP server task for processing the Hypertext Transport Protocol (HTTP) to provide a standard Web access to a remote Web browser [Blackett, Web browser, col 11 line 53].

18. As per claim 13, Blackett-Salas disclose the HTTP server task accepts a connection; parses an HTTP message; and, calls the operating system to process the HTTP message [Blackett, web server, col 11 line 40].

19. As per claim 14, Blackett-Salas disclose the HTTP message allows a user at a remote location to view data within the at least one IED from the browser operably connected to the communication network [Blackett, modem, col 11 line 2].

20. As per claim 15, Blackett-Salas disclose the HTTP message allows a user at a remote location to write data within the at least one IED from the browser operably connected to the communication network [Blackett, web browser, col 11 line 53].

21. As per claim 16, Blackett-Salas disclose the set of application tasks comprises a FTP server task for processing a File Transfer Protocol (FTP) [Blackett, FTP, col 6 line 53].

22. As per claim 17, Blackett-Salas disclose the FTP server task accepts a connection; parses an FTP message; and, calls the operating system to process the FTP message [Blackett, FTP, col 6 line 53].

23. As per claim 18, Blackett-Salas disclose the FTP message allows a user at a remote location to download a file for updating the operating software within the at least one IED through the Internet [Blackett, FTP, col 6 line 53].

24. As per claim 19, Blackett-Salas disclose the FTP message allows a user at a remote location to upload a file for obtaining data records from the at least one IED through the Internet [Blackett, FTP, col 6 line 53].

25. As per claim 20, Blackett-Salas disclose a dual TCP/IP stack [Blackett, Modbus/TCP, col 9 line 14].

26. As per claim 21, Blackett-Salas disclose the dual TCP/IP stack comprises a first stack capable of handling a broad range of TCP/IP messages and a second stack capable of handling a less broad range of TCP/IP messages more quickly than the first stack is capable of handling the broad range of TCP/IP messages [Blackett, Modbus/ TCP, col 9 line 14].

27. As per claim 22, Blackett discloses A control system for allowing a user access at a remote location through a communication network, to information and data contained in an electrical network control system having an at least one intelligent electronic device (IED), the control system comprising:

means for coupling the remote location to the communication network, the coupling means including a Web browser for interacting with the communication network [Blackett, web browser, col 11 line 53];

a Web site associated with the electrical network control system and accessible through

the communication network [Blackett, web server 230 and power system 201, Fig 2];

means for linking the electrical network control system to the Web site, the linking means including an interface module for coupling the at least one IED to the communication network [Blackett, load or power system 201, Fig 2];

first and second protocol stacks for enabling transfer of a message between the remote location and the electrical network control system, wherein, in operation, the message is selectively assigned to one of the first and second protocol stacks according to a type of the message [Blackett, first and second protocol, a first and second protocol, col 2 lines 21-38; message type, Fig 1d]; and

means for accessing the at least one IED for the message; and means for sending a response to the remote location through the communication network [Blackett, normal response, col 9 line 36].

However Blackett does not explicitly detail

means for processing the message received from the remote location over the communication network wherein a message assigned to the first protocol stack has a **higher priority** than a message assigned to the second protocol stack, the means for processing the message comprising means for receiving a message;

It was well-known in the art that a communication system with a dual protocol stacks and process a protocol task according to the priority [Salas, priority table, col 30 line 24-40]

Therefore it would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate the dual stack protocols with task priority table as

taught by Salas into the Blackett's apparatus in order to utilize the first and second protocol.

Doing so would provide an efficient, flexible, scalable method for transporting data from the first protocol network to the second protocol network.

28. Claims 23-29,33-46 contain the identical limitations set forth in claims 2-21. Therefore claims 23-29,33-46 are rejected for the same rationale set forth in claims 2-21.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong H. Vu whose telephone number is 571-272-3904. The examiner can normally be reached on 6:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thong Vu
Primary Examiner

THONG VU
PRIMARY PATENT EXAMINER